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DEPARTMENT OF THE NAVY                                NFGS-13283A
NAVAL FACILITIES                                       30 September 1996
ENGINEERING COMMAND                                     -----
GUIDE SPECIFICATION                                   Superseding NFGS-13283 (12/95)
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NFGS-13283A

REMOVAL AND DISPOSAL OF LEAD-CONTAINING PAINT

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DEPARTMENT OF THE NAVY
NAVAL FACILITIES
ENGINEERING COMMAND
GUIDE SPECIFICATION

NFGS-13283A
30 September 1996

Superseding NFGS-13282 (12/95)

SECTION 13283

REMOVAL AND DISPOSAL OF LEAD-CONTAINING PAINT
09/96

NOTE: This guide specification covers the requirements and procedures for limiting occupational and environmental exposure to lead when removing lead based paint (LBP). This guide specification is intended for use in projects where lead based paints must be removed from painted surfaces. The classification of the lead based paint as hazardous waste must be performed in accordance with 40 CFR 261, and in the design phase of the project. This classification is prerequisite to the requirement of special handling, storage, and disposal according to Federal and local hazardous waste management regulations.

NOTE: This revision "A" to NFGS-13283 deletes a reference, revises paragraph titled "Materials," and revalidates the issue dated 31 December 1995.

NOTE: Obtain from the activity information on lead based paint to be removed by the project.

NOTE: Projects that involve cutting, sawing, sanding, scraping, needle gunning, abrasive blasting, high temperature removal, etc., of lead based painted materials may result in lead exposures in excess of OSHA limits. Therefore, personal protective equipment should be used and controls implemented. Institute worker protection controls as indicated in 29 CFR 1926.62 and herein.

NOTE: Drawings should indicate total quantity of LBP to be removed or they should provide sufficient information so that bidders may determine the total quantity of LBP to be removed. Clearly indicate if the LBP is to be removed to the substrate.

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred within the text by the basic designation only.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

| | |
|------------|---|
| ANSI Z9.2 | (1979; R 1991) Fundamentals Governing the Design and Operation of Local Exhaust Systems |
| ANSI Z88.2 | (1992) Respiratory Protection |

CODE OF FEDERAL REGULATIONS (CFR)

| | |
|-----------------|---|
| 29 CFR 1926.21 | Safety Training and Education |
| 29 CFR 1926.55 | Gases, Vapors, Fumes, Dusts, and Mists |
| 29 CFR 1926.59 | Hazard Communication |
| 29 CFR 1926.62 | Lead Exposure in Construction |
| 29 CFR 1926.65 | Hazardous Waste Operations and Emergency Response |
| 29 CFR 1926.103 | Respiratory Protection |
| 40 CFR 260 | Hazardous Waste Management Systems: General |
| 40 CFR 261 | Identification and Listing of Hazardous Waste |
| 40 CFR 262 | Generators of Hazardous Waste |
| 40 CFR 263 | Transporters of Hazardous Waste |
| 40 CFR 264 | Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities |
| 40 CFR 265 | Interim Status Standard for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities |
| 40 CFR 268 | Land Disposal Restrictions |
| 40 CFR 745 | Lead; Requirements for Lead-Based Paint Activities |
| 49 CFR 172 | Hazardous Materials, Tables, and Hazardous Materials Communications Regulations |
| 49 CFR 178 | Shipping Container Specification |

UNDERWRITERS LABORATORIES INC. (UL)

UL 586

(1990) High-Efficiency, Particulate, Air
Filter Units

1.2 DEFINITIONS

1.2.1 Action Level

Employee exposure, without regard to use of respirators, to an airborne concentration of lead of 30 micrograms per cubic meter of air averaged over an 8 hour period in an occupational/industrial environment.

1.2.2 Area Sampling

Sampling of lead concentrations within the lead control area and inside the physical boundaries which is representative of the airborne lead concentrations but is not collected in the breathing zone of personnel.

1.2.3 Competent Person (CP)

As used in this section, refers to a person employed by the Contractor who is trained in the recognition and control of lead hazards in accordance with current federal, State, and local regulations. An industrial hygienist or safety professional certified for comprehensive practice by the American Board of Industrial Hygiene or by the Board of Certified Safety Professionals is the best choice.

1.2.4 Contaminated Room

Room for removal of contaminated personal protective equipment (PPE).

1.2.5 Decontamination Shower Facility

That facility that encompasses a clean clothing storage room, and a contaminated clothing storage and disposal rooms, with a shower facility in between.

1.2.6 Eight-Hour Time Weighted Average (TWA)

Airborne concentration of lead to which an employee is exposed, averaged over an 8 hour workday as indicated in 29 CFR 1926.62.

1.2.7 High Efficiency Particulate Air (HEPA) Filter Equipment

HEPA filtered vacuuming equipment with a UL 586 filter system capable of collecting and retaining lead-contaminated paint dust. A high efficiency particulate filter means 99.97 percent efficient against 0.3 micron or larger size particles.

1.2.8 Lead

Metallic lead, inorganic lead compounds, and organic lead soaps.

1.2.9 Lead Based Paint (LBP)

Protective or decorative coating which contains lead.

1.2.10 Lead Control Area

An enclosed area or structure, constructed as a temporary containment

equipped with HEPA filtered local exhaust, which prevents the spread of lead dust, paint chips, or debris existing as a condition of lead based paint removal operations. The lead control area is also isolated by

physical boundaries to prevent unauthorized entry of personnel.

1.2.11 Lead Permissible Exposure Limit (PEL)

Fifty micrograms per cubic meter of air as an 8 hour time weighted average as determined by 29 CFR 1926.62. If an employee is exposed for more than eight hours in a work day, the PEL shall be determined by the following formula:

$$\text{PEL (micrograms/cubic meter of air)} = 400/\text{No. hrs worked per day}$$

1.2.12 Personal Sampling

Sampling of airborne lead concentrations within the breathing zone of an employee to determine the 8 hour time weighted average concentration in accordance with 29 CFR 1926.62. Samples shall be representative of the employees' work tasks. Breathing zone shall be considered an area within a hemisphere, forward of the shoulders, with a radius of $\sqrt[3]{150 \text{ to } 225 \text{ mm}}$ $\sqrt[3]{\sim \text{six to nine inches} \sim}$ and centered at the nose or mouth of an employee.

1.2.13 Physical Boundary

Area physically roped or partitioned off around an enclosed lead control area to limit unauthorized entry of personnel. As used in this section, "inside boundary" shall mean the same as "outside lead control area but inside boundary."

1.3 QUALITY ASSURANCE

1.3.1 Medical Examinations

Before exposure to lead-contaminated dust, provide workers with a comprehensive medical examination as required by 29 CFR 1926.62 and 29 CFR 1926.103. The examination will not be required if adequate records show that employees have been examined as required by 29 CFR 1926.62 within the last year.

1.3.1.1 Medical Records

Maintain complete and accurate medical records of employees for a period of at least 30 years or for the duration of employment plus 30 years, whichever is longer.

1.3.1.2 Medical Surveillance

Provide medical surveillance to all personnel exposed to lead as indicated in 29 CFR 1926.62.

1.3.2 Competent Person (CP) Responsibilities

- a. Certify training as meeting all federal, State, and local requirements.
- b. Review and approve lead based paint removal plan for conformance to the applicable referenced standards.

- c. Continuously inspect lead based paint removal work for conformance with the approved plan.
- d. Perform air and wipe sampling.

- e. Ensure work is performed in strict accordance with specifications at all times.
- f. Control work to prevent hazardous exposure to human beings and to the environment at all times.
- g. Certify the conditions of the work as called for elsewhere in this specification.

1.3.3 Training

Train each employee performing paint removal, disposal, and air sampling operations prior to the time of initial job assignment and annually thereafter, in accordance with 29 CFR 1926.21, 29 CFR 1926.62, and State and local regulations.

1.3.3.1 Training Certification

Submit a certificate for each employee, signed and dated by the approved training source, stating that the employee has received the required lead training.

1.3.4 Respiratory Protection Program

- a. Furnish each employee required to wear a negative pressure respirator or other appropriate type with a respirator fit test at the time of initial fitting and at least every six months thereafter as required by 29 CFR 1926.62.
- b. Establish and implement a respiratory protection program as required by ANSI Z88.2, 29 CFR 1926.103, 29 CFR 1926.62, and 29 CFR 1926.55.

1.3.5 Hazard Communication Program

Establish and implement a Hazard Communication Program as required by 29 CFR 1926.59.

1.3.6 Hazardous Waste Management

The Hazardous Waste Management Plan shall comply with applicable requirements of federal, State, and local hazardous waste regulations and address:

- a. Identification and classification of hazardous wastes associated with the work.
- b. Estimated quantities of wastes to be generated and disposed of.
- c. Names and qualifications of each contractor that will be transporting, storing, treating, and disposing of the wastes. Include the facility location [and operator] and a 24-hour point of contact. Furnish two copies of [EPA] [State] [and] [local] hazardous waste [permit applications] [permits] [manifests] [and] [EPA Identification numbers].

- d. Names and qualifications (experience and training) of personnel who will be working on-site with hazardous wastes.

- e. List of waste handling equipment to be used in performing the work, to include cleaning, volume reduction, and transport equipment.
- f. Spill prevention, containment, and cleanup contingency measures including a health and safety plan to be implemented in accordance with 29 CFR 1926.65.
- g. Work plan and schedule for waste containment, removal and disposal. Wastes shall be cleaned up and containerized daily.
- h. Cost for hazardous waste disposal according to this plan.

1.3.7 Safety and Health Compliance

 NOTE: Include applicable State, regional, and local laws, regulations, and statutes. Do careful research since not all State and local laws apply to Federal installations.

In addition to the detailed requirements of this specification, comply with laws, ordinances, rules, and regulations of Federal, State, and local authorities regarding removing, handling, storing, transporting, and disposing of lead waste materials. Comply with the applicable requirements of the current issue of 29 CFR 1926.62. Submit matters regarding interpretation of standards to the Contracting Officer for resolution before starting work. Where specification requirements and the referenced documents vary, the most stringent requirement shall apply. [The following [local] [and] [State] laws, ordinances, criteria, rules and regulations regarding removing, handling, storing, transporting, and disposing of lead-contaminated materials apply:

- a. [_____]
- b. [_____]
- c. [_____]

1.3.8 Pre-Construction Conference

Along with the CP, meet with the Contracting Officer to discuss in detail the hazardous waste management plan and the lead based paint removal plan, including work procedures and precautions for the removal plan.

1.4 DESCRIPTION OF WORK

 NOTE: Specify an approximate quantity of LBP to be removed. Provide an indication of its condition (well adhered, flaking, chalking, alligatored, chipped, etc.) and provide a general description of the location of the LBP (on doors, windows, walls, ceilings, floors, piping, etc.).

Remove [_____] \^square meters^\ \~square feet~\ of lead based paint in
[_____] condition, located [_____] and as indicated on the drawings.

1.5 SUBMITTALS

NOTE: Where a "G" in asterisk tokens follows a submittal item, it indicates Government approval for that item. Add "G" in asterisk tokens following any added or existing submittal items deemed sufficiently critical, complex, or aesthetically significant to merit approval by the Government. Submittal items not designated with a "G" will be approved by the QC organization.

Submit the following in accordance with section entitled "Submittal Procedures".

1.5.1 SD-02, Manufacturer's Catalog Data

- a. Vacuum filters G
- b. Respirators G

1.5.2 SD-06, Instructions

- a. Chemicals and equipment G
- b. Materials G
- c. Material safety data sheets for all chemicals G

1.5.3 SD-08, Statements

- a. Qualifications of CP G
- b. Testing laboratory and consultant qualifications G
- c. Lead based paint removal plan including CP approval (signature, date, and certification number) G
- d. Rental equipment notification G
- e. Respiratory protection program G
- f. Hazard communication program G
- g. EPA approved hazardous waste treatment or disposal facility for lead disposal G
- h. Hazardous waste management plan G

1.5.3.1 Qualifications of CP

Submit name, address, and telephone number of the CP selected to perform responsibilities specified in paragraph entitled "Competent Person (CP) Responsibilities." Provide previous experience of the CP. Submit proper documentation that the CP is trained [and licensed] in accordance with federal, State, and local laws.

1.5.3.2 Testing Laboratory and Consultant

Submit the name, address, and telephone number of the testing laboratory

and consultant selected to perform the sampling, testing, and reporting of airborne concentrations of lead. Use a laboratory accredited under the EPA National Lead Laboratory Accreditation Program (NLLAP) by either the American Association for Laboratory Accreditation (A2LA) or the American Industrial Hygiene Association (AIHA) and that is successfully participating in the Environmental Lead Proficiency Analytical Testing (ELPAT) program to perform sample analysis.

1.5.3.3 Lead Based Paint Removal Plan (LBPRP)

Submit a detailed job-specific plan of the work procedures to be used in the removal of LBP. The plan shall include a sketch showing the location, size, and details of lead control areas, location and details of decontamination facilities, viewing ports, and mechanical ventilation system. Include in the plan, eating, drinking, smoking and sanitary procedures, interface of trades, sequencing of lead related work, collected waste water and paint debris disposal plan, air sampling plan, respirators, personal protective equipment, and a detailed description of the method of containment of the operation to ensure that airborne lead concentrations of 30 micrograms per cubic meter of air and baseline lead dust concentrations are not reached or exceeded outside of the lead control area. Include occupational and environmental sampling, training and strategy, sampling methodology, frequency, duration of sampling, and qualifications of sampling personnel in the air sampling portion of the plan.

1.5.4 SD-12, Field Test Reports

a. Sampling results G

1.5.4.1 Occupational and Environmental Sampling Results

Submit occupational and environmental sampling results to the Contracting Officer within three working days of collection, signed by the testing laboratory employee performing the analysis, the employee that performed the sampling, and the CP.

1.5.5 SD-13, Certificates

a. Vacuum filters G

1.5.6 SD-18, Records

a. Completed and signed hazardous waste manifest from treatment or disposal facility G

b. Certification of medical examinations G

c. Employee training certification G

1.6 REMOVAL

1.6.1 Title to Materials

Materials resulting from demolition work, except as specified otherwise, shall become the property of the Contractor and shall be disposed of in accordance with Section 02220, "Site Demolition," except as specified

herein.

1.7 EQUIPMENT

1.7.1 Respirators

Furnish appropriate respirators approved by the Mine Safety and Health Administration (MSHA) and the National Institute for Occupational Safety and Health (NIOSH), Department of Health and Human Services, for use in atmospheres containing lead dust. Respirators shall comply with the requirements of 29 CFR 1926.62.

1.7.2 Special Protective Clothing

Furnish personnel who will be exposed to lead-contaminated dust with proper disposable [uncontaminated, reusable] protective whole body clothing, head covering, gloves, and foot coverings as required by 29 CFR 1926.62. [Dispose of reusable protective whole body clothing as hazardous waste after completion of the project.] Furnish proper disposable plastic or rubber gloves to protect hands. Reduce the level of protection only after obtaining approval from the CP.

1.7.3 Rental Equipment Notification

If rental equipment is to be used during lead based paint handling and disposal, notify the rental agency in writing concerning the intended use of the equipment. Furnish a copy of the written notification to the Contracting Officer.

1.7.4 Vacuum Filters

UL 586 labeled HEPA filters.

1.7.5 Equipment for Government Personnel

NOTE: Verify the number of sets required with
OICC/ROICC.

Furnish the Contracting Officer with [two] [____] complete sets of personal protective equipment (PPE) daily, as required herein, for entry into and inspection of the paint removal work within the lead controlled area. Personal protective equipment shall include disposable whole body covering, including appropriate foot, head, and hand protection. PPE shall remain the property of the Contractor. Respiratory protection for the Contracting Officer will be provided by the Government.

PART 2 PRODUCTS

2.1 CHEMICALS

Submit applicable Material Safety Data Sheets for all chemicals used in paint removal work. Use the least toxic product approved by the Contracting Officer.

2.2 MATERIALS

The soluble metal content and the total metal content shall not exceed values which would cause a material to be classified as a hazardous waste.

PART 3 EXECUTION

3.1 PROTECTION

3.1.1 Notification

Notify the Contracting Officer [20] [_____] days prior to the start of any paint removal work.

3.1.2 Lead Control Area Requirements

NOTE: Choose the first paragraph if LBP will be removed by means which will not create airborne, lead containing dust (such as scraping or chemical stripping). Choose the second paragraph if removal practice will create airborne, lead containing dust (such as sanding, abrasive blasting, or needle gun use).

[Establish a lead control area by completely enclosing with [containment screens] [_____] the area or structure where lead based paint removal operations will be performed.]

NOTE: The Designer should consider the use of viewing ports for lead control areas under \^100 square meters^\ \~1,000 square feet~\ to save inspection time.

[Contain removal operations by the use of a negative pressure enclosure system with decontamination facilities and with HEPA filtered exhaust. For containment areas larger than \^100 square meters^\ \~1,000 square feet~\ install a minimum of two \^450 mm^\ \~18 inch~\ square viewing ports. Locate ports to provide a view of the required work from the exterior of the enclosed contaminated area. Glaze ports with laminated safety glass.]

3.1.3 Protection of Existing Work to Remain

Perform paint removal work without damage or contamination of adjacent areas. Where existing work is damaged or contaminated, restore work to its original condition or better.

3.1.4 Boundary Requirements

Provide physical boundaries around the lead control area by roping off the area designated in the work plan or providing curtains, portable partitions or other enclosures to ensure that airborne concentrations of lead will not reach 30 micrograms per cubic meter of air outside of the lead control area.

3.1.5 Furnishings

NOTE: Verify with the activity furniture/equipment requirements.

[The Government will remove furniture and equipment from the building before lead based paint removal work begins.]

[Furniture [_____] and equipment will remain in the building. Protect and cover furnishings or remove furnishings from the work area and store in a location approved by the Contracting Officer.]

[Existing [furniture] [and] [equipment] is lead contaminated, [decontaminate] [dispose of as lead contaminated waste].]

3.1.6 Heating, Ventilating and Air Conditioning (HVAC) Systems

Shut down, lock out, and isolate HVAC systems that supply, exhaust, or pass through the lead control areas. Seal intake and exhaust vents in the lead control area with $\frac{1}{16}$ mm $\frac{1}{16}$ mil plastic sheet and tape. Seal seams in HVAC components that pass through the lead control area. [Provide temporary HVAC system for areas in which HVAC has been shut down outside the lead control area.]

3.1.7 Decontamination Shower Facility

Provide clean and contaminated change rooms and shower facilities in accordance with this specification and 29 CFR 1926.62.

3.1.8 Mechanical Ventilation System

- a. Use adequate ventilation to control personnel exposure to lead in accordance with 29 CFR 1926.62.
- b. To the extent feasible, use fixed local exhaust ventilation connected to HEPA filters or other collection systems, approved by the CP. Local exhaust ventilation systems shall be designed, constructed, installed, and maintained in accordance with ANSI Z9.2.
- c. Vent local exhaust outside the building only and away from building ventilation intakes.
- d. Use locally exhausted, power actuated, paint removal tools.

3.1.9 Personnel Protection

Personnel shall wear and use protective clothing and equipment as specified herein. Eating, smoking, or drinking or application of cosmetics is not permitted in the lead control area. No one will be permitted in the lead control area unless they have been appropriately trained and provided with protective equipment.

3.1.10 Warning Signs

Provide warning signs at approaches to lead control areas. Locate signs at such a distance that personnel may read the sign and take the necessary precautions before entering the area. Signs shall comply with the requirements of 29 CFR 1926.62.

3.2 WORK PROCEDURES

Perform removal of lead based paint in accordance with approved lead based paint removal plan. Use procedures and equipment required to limit

occupational and environmental exposure to lead when lead based paint is removed in accordance with 29 CFR 1926.62, except as specified herein. Dispose of removed paint chips and associated waste in compliance with Environmental Protection Agency (EPA), federal, State, and local

requirements.

3.2.1 Personnel Exiting Procedures

Whenever personnel exit the lead-controlled area, they shall perform the following procedures and shall not leave the work place wearing any clothing or equipment worn during the work day:

- a. Vacuum themselves off.
- b. Remove protective clothing in the contaminated change room, and place them in an approved impermeable disposal bag.
- [c. Shower.]
- d. Change to clean clothes prior to leaving the physical boundary designated around the lead control area.

3.2.2 Air and Wipe Sampling

Air sample for lead in accordance with 29 CFR 1926.62 and as specified herein. Air and wipe sampling shall be directed or performed by the CP.

- a. The CP shall be on the job site directing the air and wipe sampling and inspecting the lead based paint removal work to ensure that the requirements of the contract have been satisfied during the entire lead based paint removal operation.
- b. Collect personal air samples on employees who are anticipated to have the greatest risk of exposure as determined by the CP. In addition, collect air samples on at least twenty-five percent of the work crew or a minimum of two employees, whichever is greater, during each work shift.
- c. Submit results of air samples, signed by the CP, within 72 hours after the air samples are taken. Notify the Contracting Officer immediately of exposure to lead at or in excess of the action level of 30 micrograms per cubic meter of air outside of the lead control area.
- d. Before any work begins, collect and analyze baseline wipe samples in accordance with methods defined in federal, State, and local standards inside and outside of the physical boundary to assess the degree of dust contamination in the facility prior to lead based paint removal.

3.2.2.1 Air Sampling During Paint Removal Work

Conduct area air sampling daily, on each shift in which lead based paint removal operations are performed, in areas immediately adjacent to the lead control area. Sufficient area monitoring shall be conducted to ensure unprotected personnel are not exposed at or above 30 micrograms per cubic meter of air. If 30 micrograms per cubic meter of air is reached or exceeded, stop work, correct the conditions(s) causing the increased levels. Notify the Contracting Officer immediately. Determine if

condition(s) require any further change in work methods. Removal work shall resume only after approval is given by the CP and the Contracting Officer. For outdoor operations, at least one sample on each shift shall be taken on the downwind side of the lead control area.

3.2.3 Lead Based Paint Removal

NOTE: Use bracketed prohibition on manual and power sanding when appropriate. Large scale manual or power sanding of painted surfaces should never be allowed in family housing, administrative buildings, galleys, barracks, etc., due to problems associated with the resulting dust fallout/contamination of crevices and cracks which may retain unseen quantities of lead-contaminated dust. Use of this type of removal technique for exteriors of the aforementioned facility types should be extremely limited, because the resulting airborne dust could result in significant contamination of the ground in the immediate vicinity of the facility. Manual or power sanding of interior and exterior surfaces may be an acceptable work method only if appropriate control for personnel/environmental protection are in place.

[Manual or power sanding of interior and exterior surfaces is not permitted.] Provide methodology for removing LBP in work plan. Remove paint within the areas designated on the drawings in order to completely expose the substrate. Take whatever precautions necessary to minimize damage to the underlying substrate.

NOTE: Use if paint removal is from metal or concrete surfaces.

[Avoid flash rusting or other deterioration of the substrate. Provide surface preparations for painting in accordance with Section 09900, "Paints and Coatings".]

NOTE: Listed below are various types of paint removal techniques. Designer may be required to specify a particular technique in order to limit potential conflicts or problems.

1. Wood, Drywall, Interior Partitions

- a. Scraping
- b. Heat Stripping
- c. Chemical Stripping
- d. Power Tool Cleaning (least acceptable)
- e. Wet Abrasive Blasting

Chemical stripping should be carefully researched as a removal method for soft wood (eg. pine or redwood) substrates. The wrong chemical strippers can increase the risk of residual lead contamination in the substrate.

2. Steel and Metal Surfaces (Industrial)

- a. Power/Hand Tool Cleaning (least acceptable)
- b. Dry Abrasive Blast with Water Ring (Wet "Halo")
- c. Wet Abrasive Blast
- d. Low Volume High Pressure Water Blast
- e. Chemical Stripping

Select paint removal processes to minimize contamination of work areas with lead-contaminated dust or other lead-contaminated debris/waste. Describe this paint removal process in the lead based paint removal plan. Perform manual wet sanding and scraping to the maximum extent feasible.

3.2.3.1 Indoor Lead Paint Removal

Perform [manual] [mechanical] paint removal [and abrasive blasting] in lead control areas using negative pressure enclosures with HEPA filtered exhaust [and power actuated locally exhausted paint removal tools]. Collect paint residue [and spent grit (used abrasive) from blasting operations] for disposal in accordance with EPA, State, and local requirements.

3.2.3.2 Outdoor Lead Paint Removal

Perform outdoor LBP removal as indicated in federal, State, and local regulations and in the work plan.

3.2.3.3 Air and Wipe Sampling After Paint Removal

After the visual inspection, collect air samples inside and outside the lead control area to determine the airborne levels of lead inside and outside the work area. Collect wipe samples according to the HUD protocol to determine the lead content of settled dust and dirt in micrograms per square foot of surface area.

3.2.4 Cleanup and Disposal

3.2.4.1 Cleanup

Maintain surfaces of the lead control area free of accumulations of paint chips and dust. Restrict the spread of dust and debris; keep waste from being distributed over the work area. Do not dry sweep or use compressed air to clean up the area. At the end of each shift and when the paint removal operation has been completed, clean the area of visible lead paint contamination by vacuuming with a HEPA filtered vacuum cleaner, wet mopping the area and wet wiping the area as indicated by the CP. Reclean areas showing dust or residual paint chips or debris. After visible dust, chips and debris is removed, wet wipe and HEPA vacuum all surfaces in the work area. If adjacent areas become contaminated at any time during the work, clean, visually inspect, and then wipe sample all contaminated areas. The CP shall then certify in writing that the area has been cleaned of lead contamination before restarting work.

3.2.4.2 Certification

NOTE: Include bracketed text for family housing projects only, otherwise delete.

The CP shall certify in writing that the final air samples collected
inside and outside the lead control area are less than 30 micrograms per

cubic meter of air [and that the surface wipe sample results collected inside and outside the work area are less than 100 micrograms per $\sqrt{0.1}$ square meter $\sqrt{\sim}$ square foot \sim on uncarpeted floors, less than 500 micrograms per $\sqrt{0.1}$ square meter $\sqrt{\sim}$ square foot \sim on interior window sills and less than 800 micrograms per $\sqrt{0.1}$ square meter $\sqrt{\sim}$ square foot \sim on window troughs]; the respiratory protection used for the employees was adequate; the work procedures were performed in accordance with 29 CFR 1926.62 and 40 CFR 745; and that there were no visible accumulations of lead based paint and dust left in the work site. Do not remove the lead control area or roped off boundary and warning signs prior to the Contracting Officer's acknowledgement of receipt of the CP certification.

3.2.4.3 [Testing of Lead Based Paint Residue and Used Abrasive

NOTE: Include this paragraph when abrasive blasting
is specified as a removal method.

Test lead containing paint residue and used abrasive in accordance with 40 CFR 261 for hazardous waste.]

3.2.4.4 Disposal

NOTE: Notify the activity that Federal regulations
(40 CFR 260-265) require a U.S. EPA generator
identification number for use on the Uniform
Hazardous Waste Manifest prior to commencement of
removal work.

NOTE: Research State, regional, and local laws,
regulations, and statutes and revise the
specifications accordingly.

- a. Collect lead-contaminated waste, scrap, debris, bags, containers, equipment, and lead-contaminated clothing which may produce airborne concentrations of lead particles. Label the containers in accordance with 29 CFR 1926.62 and 40 CFR 261. Dispose of lead-contaminated waste material at an [EPA] [or] [State] approved hazardous waste treatment, storage, or disposal facility off Government property.
- b. Store waste materials in U.S. Department of Transportation (49 CFR 178) approved $\sqrt{208}$ liter $\sqrt{\sim}$ 55 gallon \sim drums. Properly label each drum to identify the type of waste (49 CFR 172) and the date the drum was filled. The Contracting Officer or an authorized representative will assign an area for interim storage of waste-containing drums. Do not store hazardous waste drums in interim storage longer than 90 calendar days from the date affixed to each drum.
- c. Handle, store, transport, and dispose lead or lead-contaminated

waste in accordance with 40 CFR 260, 40 CFR 261, 40 CFR 262, 40 CFR 263, 40 CFR 264, and 40 CFR 265. Comply with land disposal restriction notification requirements as required by 40 CFR 268.

3.2.5 Disposal Documentation

NOTE: Include the following paragraph if the
Contractor is to dispose of hazardous waste.

Submit written evidence that the hazardous waste treatment, storage, or disposal facility (TSD) is approved for lead disposal by the EPA and State or local regulatory agencies. Submit one copy of the completed manifest, signed and dated by the initial transporter in accordance with 40 CFR 262.

3.2.6 Payment for Hazardous Waste

Payment for disposal of hazardous waste will not be made until a signed copy of the manifest from the treatment or disposal facility certifying the amount of lead-containing materials delivered is returned and a copy is furnished to the Government.

NOTE: Suggestions for improvement of this
specification will be welcomed using the Navy
"Change Request Forms" subdirectory located in
SPECSINTACT in Jobs or Masters under
"Forms/Documents" directory or DD Form 1426.
Suggestions should be forwarded to:

Commanding Officer
Naval Construction Battalion Center
NAVFAC 15G/CESO 158
1000 23rd Avenue
Port Hueneme, CA 93043-4301

FAX: (805) 985-6465/982-5196 or DSN 551-5196

-- End of Section --